

## WHAT IS CLAIMED IS:

1. A method for testing engine exhaust gases to determine the effects of variable parameters on deposit build up in exhaust gas recirculation systems, comprising the steps of:

providing a test jig having a test branch and a control branch;  
modifying a parameter of interest in said test branch;  
directing exhaust gas from an engine through said test jig for a period of time;  
following said period of time, comparing build up on said test branch with build up on said control branch to determine the effect of the modified parameter deposit formation.

2. The method of claim 1, wherein said test jig further comprises a main branch, each of said branches having a control valve disposed therein, comprising the further step of using said control valves to regulate flow through said branches.

3. The method of claim 1, wherein said parameter of interest is selected from the group consisting of oil, water, fuel additives, oil treatments, engine treatments, alcohol, and other combustibles that may be used in place of or in conjunction with gasoline.

4. The method of claim 1, comprising the further steps of analyzing said build up to determine components thereof.

5. The method of claim 2, wherein said parameter of interest is selected from the group consisting of oil, water, fuel additives, oil treatments, engine treatments, alcohol, and other combustibles that may be used in place of or in conjunction with gasoline.

6. The method of claim 2, comprising the further steps of analyzing said build up to determine components thereof.

7. The method of claim 3, comprising the further steps of analyzing said build up to determine components thereof.

8. The method of claim 5, comprising the further steps of analyzing said build up to determine components thereof.